

Further Developing of a Curriculum in Nuclear Environmental Protection

Executive Summary

The Physics Department at Texas Southern University (TSU), in Houston, Texas, one of the nation's largest Historically Black Colleges and Universities (HBCUs), is requesting support for further developing and improving a curriculum in Nuclear Environmental Protection. As a result of the current support under the grant number NRC-38-07-495, a new curriculum in Environmental Health Physics is developed. It is proposed to commence in the Fall of 2008, and presently is the only Health Physics program in the Greater Houston area. This physics-based program grants a B.S. in honors-level health physics with special emphasis on environmental protection. The core learning facility is the radiation detection laboratory, which will run for three semesters every week. The proposed project from the current NRC grant is fully implemented except for the laboratory manuals, which would be done in the second half of the grant year. The present emphasis of the curriculum is on the comprehensive radiation measurement and dosimetry. Its weakest point is the lack of radiochemistry course and lab, high-energy resolution gamma spectrometry, liquid scintillation detector, x-ray fluorescence, beta spectroscopy and radiology emergency management (including radioactive transport and decontamination and decommissioning). The radiochemistry lab will be strongly developed through a close partnership with University of Texas at Austin and especially Dr. Sheldon Landsberger.